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Certification of Agricultural Seeds in Montana

November 15, 1980

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SEED CERTIFICATION

IN MONTANA

A REPORT TO THE

FORTY-SEVENTH LEGISLATURE

STUDY COMMITTEE

ON SEED CERTIFICATION

NOVEMBER 1980

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MONTANA LEGISLATIVE COUNCIL
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The Committee's activity was funded by money appropriated in HB 483, Laws of 1979.

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HOUSE JOINT RESOLUTION NO. 62

A JOINT RESOLUTION OF THE SENATE AND THE HOUSE OF REPRESENTATIVES OF THE STATE OF MONTANA REQUESTING ASSIGNMENT OF AN INTERIM COMMITTEE TO STUDY MONTANA'S PRESENT SEED CERTIFICATION LAWS AND TO PROPOSE NEEDED LEGISLATION TO THE 47TH LEGISLATURE.

WHEREAS, it is vital to the seed-growing industry in Montana that the State provide for seed certification because a Montana grower has a market only for certified seed; and

WHEREAS, Montana State University is responsible under present law for the certification of only those types of seeds that it elects to certify; and

WHEREAS, Montana State University has stated to the Board of Regents that it no longer desires the responsibility for seed certification, at least in the case of seed potatoes, except for providing services and facilities on a contract basis; and

WHEREAS, in order to develop a new method for seed certification that is practical and legally sound, it is necessary to coordinate any proposed changes in the present law with all interested parties, which include the Department of Agriculture, Montana State University, and seed growers' associations; and

WHEREAS, it is anticipated that the Board of Regents will require Montana State University to continue providing a seed certification program during the next 2 years until the 47th Legislature meets in 1981.

NOW, THEREFORE, BE IT RESOLVED BY THE SENATE AND THE HOUSE OF REPRESENTATIVES OF THE STATE OF MONTANA:

(1) That an interim committee be assigned to conduct a study to develop a practical and legally sound method of seed certification mutually acceptable to all of the interested parties.

(2) That the study include at least the following:

(a) the participation of the Department of Agriculture, Montana State University, the interim committee, private associations or incorporated entities presently acting as seed certification agents for Montana State University, and any other groups considered interested parties by the interim committee; and

(b) an evaluation of the methods of seed certification employed by other major seed producing states.

(3) That the committee prepare a report of its findings and conclusions together with proposed legislation for the consideration of the 47th Legislature.

Approved April 17, 1979.

BACKGROUND OF STUDY

Service to agriculture is the basic function of a seed certification program. A measure of the service is the thoroughness with which improved varieties have been utilized by farmers. Certified seed is not regularly planted by all farmers, but it is sowed frequently enough and in enough locations to benefit all of the agricultural community. The first comprehensive set of minimum standards for seed certification was prepared by the International Crop Improvement Association in the early 1940's.

A brief, lucid exposition of the methods, procedures and purposes of seed certification programs is contained in an article, "Seed Certification in the United States," in SEEDS, the Yearbook of Agriculture, 1961. The article by Frank G. Parsons, Carlton S. Garrison and Keller E. Beeson was the source of much of the information in this section of this report.

SEED CERTIFICATION IN MONTANA

Certification of field crop seeds is accomplished through certifying agencies which with the exception of certified seed potato agencies must comply with federal and state seed acts and operate in compliance with rules and regulations established to implement those laws.

Seed certification, which is a responsibility of the individual states, records pedigrees for crop varieties and provides sources of genetically pure seed and propagating material through inspection of fields and seeds and through monitoring of the production, harvesting and cleaning of each lot of seed.

"SEEDS, the Yearbook of Agriculture, 1961," explains that in most states, legislation designates a certification authority which works closely with certifying agencies and with agricultural experiment stations, the Extension Service, state department of agriculture, seed analysts, and control officials. A certifying agency usually falls into one of three categories: (1) Operated by an experiment station or Extension Service; (2) Operated by state department of agriculture; (3) Operated by crop improvement associations. Certifying agencies usually obtain their operating funds through fees charged for their services.

SEED CLASSIFICATIONS:

Certified seed is divided into four classifications:

1. Breeder seed is directly controlled by the originating plant breeder or institution and provides source for initial and recurring increase of foundation seed.

2. Foundation seed, including elite in Canada, is handled to most nearly maintain specific genetic identity and purity and may be designated or distributed by an agricultural experiment station. This is the source of all other certified seed classes, either directly or through registered seed.

3. Registered seed is progeny of registered or foundation seed handled to maintain satisfactory genetic identity and purity and approved and certified by the certifying agency. The quality should be suitable for production of certified seed.

4. Certified seed is progeny of foundation, registered or certified seed handled to maintain satisfactory genetic identity and purity and approved and certified by a certifying agency.

CERTIFICATION PROCESS:

The process of certification begins when the grower files an application including identification of the seeds and cropping history of the field. The land must not have grown the same crop for a designated preceding period unless the seed crop was of the same

At least a few farmers in nearly every community plant certified seed often enough to have a beneficial effect on the entire community. The certification tag or label assures the planter that the seed is the variety claimed, that the germ plasm and performance were known to the plant breeder who developed the variety, that it was tested under various environments and management systems, and that its potential is known. Certification indicates that the seed is a good variety--not necessarily the best under all conditions but at least satisfactory where its use is recommended.

The certification label is the stamp of acceptability from an impartial agency.

FEDERAL SEED ACT:

The Federal Seed Act, passed by Congress in 1939, regulates genetic quality and requires truthful labeling of all seed moving in interstate and foreign commerce. Part 201 of the Federal Seed Act Regulation, titled "Certified Seed Regulations," governs all seed certifying agencies except potato certifying agencies.

All seed certifying agencies are audited every two to four years by the Association of Official Seed Certifying Agencies with reports submitted to Federal Seed Act officials to determine that certified seed regulations are followed. The Montana Seed Growers Association's next audit will be in 1981. All state certifying agencies must have genetic and mechanical standards equal to or higher than set forth in the regulations.

PLANT VARIETY PROTECTION ACT:

The Plant Variety Protection Act of 1970 was passed by the U.S. Congress to protect plant breeders of either public or private institutions who develop new varieties of plants that reproduce sexually. A Certificate of Protection under this act lasts for 17 years and is issued only to a novel variety that has met three qualifications:

1. Distinctness - must differ from all known varieties in one or more ways: morphological (shape, color), physiological (disease resistance), or other characteristics (such as milling, baking).

2. Uniformity - if variations exist in the variety, they must be describable, predictable, and commercially acceptable.

3. Stability - when sexually reproduced, must remain unchanged in its essential and distinctive characteristics to a degree expected of similarly developed varieties.

MONTANA AGRICULTURAL SEED ACT:

The Montana Agricultural Seed Act is administered by the Montana Department of Agriculture, governs merchandising of grain, field crop seeds and mustard seed. Standards of the Montana Seed Growers comply with regulations of this law as well as with the Federal Seed Act.

The Montana Seed Growers Association (MSGA) was established in 1912 to develop rules and standards to help alfalfa seed growers maintain a good market for their seed. Regulations and standards developed involved a generation system, varietal identity, and mechanical analysis. The law gives Montana State University responsibility for seed certification, and the university president in 1952 authorized MSGA to be the official certifying agency for all field crops and propagating material except potatoes.

Under MSGA supervision, all certified classes of seed, after passing field inspection, are tested in the Montana State Seed Testing Laboratory for purity, inert matter, noxious and common weed seed content, crop mixture and germination. Barley seed is also tested for Barley Stripe Mosaic Virus. The Cereal Quality Laboratory works very closely with the Montana Seed Growers Association in determining the milling, baking and protein qualities of the spring and winter wheat being grown under certification. Purpose of field crop seeds is to maintain the highest practical level of genetic purity and to preserve variety identity.

SEED POTATOES:

Policing of seed potato quality in the U.S. rests with individual states, and seed potatoes are generally produced in the band of states across the northern U.S. from Maine to Washington and in the adjoining Canadian provinces. Altitude as well as latitude influence the suitability of an acre to produce seed, and final objective of seed certification is to produce a product uniform as to variety and free enough of seedborne diseases and pests so that the commercial crop produced will not be damaged as to yield or quality.

The disease causing most rejections for seed and which is a constant threat to every seedgrower is bacterial ring rot, and the practice of planting seed cut from relatively large tubers has undoubtedly been a factor.

Next in importance are the common virus diseases caused by virus Leaf Roll and the potato viruses A,X,Y and Spindle Tuber.

Also of great importance are mainly tuber-borne diseases which are influenced in their degree of damage by environmental factors and seed handling procedures such as Blackleg, Fusarium, Common Scab, Rhizoctonia, Verticillium Wilt, Silver Scurf, and Skin Spot.

The patent act was extended in 1930 to include asexually propagated plants, but sexually reproduced plants were excluded from protection on grounds that "new manufacture" did not include processes making use of the natural functions of plants and animals. Plant Variety Protection Act of 1970 grew from the need of private industry to recoup investment in development of new varieties.

Importance of seed quality is demonstated by the fact that certified seed yields an average of 2.5 bushels per acre higher than uncertified seed. Protecting public varieties of self-pollinated crops will help keep them in the marketplace. Merchandisers of unprotected varieties have as competitors every farmer and elevator that wants to pick up extra cash in selling seed.

CERTIFICATION IN MONTANA:

Seed production was first established in Montana in late 19th century when alfalfa was introduced for forage, and the market for alfalfa seed produced in Montana gave birth to a lucrative business.

With the founding of the Montana Seed Growers Association in 1912, the business took on a formal structure in the state, and legislative enactment soon gave it official standing.

The 1913 legislature enacted the first regulation of the seed industry by prescribing a long list of seeds that, when sold in lots of one pound or more, must be packaged and marked with name, percentage of germination, percentage by weight of quack grass, fan weed, french weed, mustard, wild oats and dobber, and approximate percentage by weight of sand, dirt, broken or shriveled seeds, sticks, chaff and other inert matter.

The 1937 legislature expanded the law to allow any person to send seed samples to the state seed and grain laboratory of the Montana Agricultural Experiment Station for testing, and in 1939 the legislature limited to five the number of samples that one individual could submit for free testing in any single year. Samples above five were to be charged for at rates set in the law. The 1949 legislature removed the fee schedule from the statute and authorized state officials to set charges for testing samples in addition to the first five free.

The 1939 enactment gave force of law to the certificate of Montana grain inspection laboratory giving results of any examinations, analyses or tests of any seed samples as presumptive evidence of the correctness of the facts stated.

The 1951 Legislature authorized Montana State University or its designated agents to certify seeds or plant parts intended for propagation but specified that not more than one agent be designated for any one crop.

Free testing of samples was eliminated by the 1951 legislature, which also defined noxious weed seeds and prohibited sale of seed that contains noxious weed seeds in excess of certain limits or that has germination test dated more than nine months prior to sale. Commissioner of agriculture was empowered to issue and enforce "stop-sale" order on any lot of seed in violation of provisions of act.

A uniform agricultural seed law passed in 1969 defined seeds and regulated sale and labeling of seeds.

A 1973 law, among other provisions, required that the label show the name of each kind of seed present in excess of five percent, and when two or more kinds are shown on label, name of each kind must be accompanied by percentage. When only one kind is present in excess of one percent and no variety name or type designation is shown, percentage of that kind may be shown as "pure seed."

The 1973 law also prohibited sale of seed more than nine months after germination testing unless packaged in hermetically-sealed containers within 12 months after harvest and unless seed has been preconditioned as to moisture content, and unless germination test is valid for not more than 18 months from date of germination tests for seeds offered at wholesale and for not more than 36 months for seeds offered at retail.

Another 1973 law requires the state department of agriculture to issue licenses to seed processing plants, labelers, buyers, and public warehouses. A Montana certified seed grower, when processing or labeling seed from his own production, is not required to be licensed. The license may cover any one or as many as all four activities.

The 1973 law also required a dealer's license for each place of business distributing seed, but the license was not required for a person who distributes seeds in packages of less than one pound only, packaged by a licensed seed labeler and bearing his name and address.

SOURCES

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"Plant Variety Protection: How it Works for You," U.S. Department of Agriculture, Agricultural Marketing Service PA 1191.

"Senate Bill No. 509" 46th Legislature.

Chapter 12, Laws of 1913

Chapter 192, Laws of 1937

Chapter 88, Laws of 1939

Chapter 85, Laws of 1949

Chapters 11 and 155, Laws of 1951

Chapter 361, Laws of 1969

Chapters 390 and 442, Laws of 1973

Chapter 218, Laws of 1974

Chapter 13, Laws of 1977

Chapter 20, Laws of 1979

LAWS PERTAINING TO SEEDS

The basic purpose of seed laws is to assure that seed is labeled truthfully. Seed dealers may legally sell low quality but correctly labeled seed.

In 1821, Connecticut banned the sale of grass seed containing Canada thistle and other weeds. The two earliest vegetable seed laws were adopted in 1889 by Florida and in 1891 by California. By 1941, all 48 states had seed laws.

In 1904, Congress appropriated funds to buy in the open market samples of seeds of clover, grass or alfalfa to be tested. If any seeds were found adulterated, misbranded, or if any seeds of Canada bluegrass were sold under any other name, results of tests should be published, with names of persons offering the seeds for sale. From 1904 to 1919, about 15,000 samples were tested and about 20 percent of samples were adulterated.

The Seed Importation Act of 1912 restricted importation of seeds of the principal forage plants on the basis of the content of weed seeds and low purity. The Act was amended in 1916 to add requirement as to live seed and in 1926 to require that all imported seeds of alfalfa and red clover be colored to indicate degree of adaptability and to prohibit shipment of falsely and fraudulently labeled seed.

The Federal Seed Act of 1939 required detailed labeling of seeds. The recommended uniform state seed law contributed to uniformity that exists in seed laws among the states and the Federal Seed Act. Federal and state laws contain somewhat similar provisions.

A trademark is a term which distinguishes goods as to source. It identifies the manufacturer or the distributor--not the product. A trademark is private property and may be used only by the owner or with the owner's permission. When a trademark is made a name of a variety, it loses protection as a trademark. A variety name cannot be a valid trademark.

A patent can be granted to anyone who has invented or discovered and asexually reproduced any distinct and new variety of plant, other than tuber-propagated. Asexually means propagated other than from seeds, such as by rooting of cuttings by layering, budding and grafting. An applicant for a patent on a particular plant variety must have done something to create or produce it, and it must be distinct and new. A plant found by a person is not patentable.

Farmer-producers of seed have responsibilities. If a farmer signs a grower's declaration of variety, he assumes responsibility for the representation of seed that is indistinguishable. Signing of a grower's declaration without a sound basis may mean seed is falsely labeled, and farmers should recognize their responsibility when they sign such declarations. A farmer is exempt from complying with labeling requirements for seeds that he sells on his own

premises and does not advertise for sale. Such sales should be controlled more closely because homegrown seeds and seed sold by farmer to farmer in the same locality without labeling generally are the poorest seeds sown.

Unused treated seeds should not be mixed with and sold as part of the seeds produced the following season. Particularly, it should not be sold with a grain crop delivered to an elevator. Carloads of grain have been seized and condemned by the Food and Drug Administration because of treated seeds in the grain. Leftover seed treated with toxic material should not be used for feed for animals.

Most seed must consist of at least 75 percent pure live seed, calculated by multiplying percentage of pure seeds by percentage of germination and dividing by 100.

Imported seed must contain not more than two percent of weed seeds. Not permitted in commerce in the U.S. is seed containing noxious weed seeds in excess of one in 10 grams of seed the size of timothy, one in 25 grams of seed the size of sorghum, or one in 100 grams of seed the size of wheat.

Imported alfalfa and red clover seeds must be stained to indicate their adaptability for growing in this country. Alfalfa and red clover seeds grown in Canada must be stained so one percent is colored violet. Seed from South America must be stained so 10 percent is orange-red. Seed from different origins must be stained so 10 percent is colored red.

Plant quarantine regulations that affect the importation, exportation and interstate movement of seeds are enforced to prevent the introduction and dissemination of injurious foreign insect and disease pests.

Imported seeds are divided into three categories dependent on their entry status and conditions of importations: prohibited seeds, restricted seeds subject to inspection and fumigation at special inspection stations, and restricted seeds subject to inspection at any port of entry where plant quarantine inspection services are available.

Wheat seeds are prohibited from all countries where the flag smut rust occurs. Seeds of corn and closely related plants may not be imported from a number of countries in southeastern Asia because of several downy mildews and other corn diseases occurring in those areas.

Source: "Our Laws that Pertain to Seeds," by S. F. Rollin and Frederick A. Johnston, "SEEDS, the Yearbook of Agriculture, 1961."

SEED CERTIFICATION PROGRAMS

State seed certification programs appear to function in similar fashions, according to information provided by the Montana Seed Growers Association, and 48 states operate certification programs. Only Rhode Island and Connecticut--predominantly urban, industrial states with insignificant agricultural communities--do not have certified seed agencies.

In 28 states, the certifying agencies are officed on university campuses, and in 14 states the certifying agencies operate under authority of a university. Montana fits into both of these categories with Montana State University establishing rules and standards and with Montana Seed Growers Association, the certifying agency, maintaining headquarters there.

Except for some slight variations, certification programs of Montana and her neighbor states are consistent.

In Idaho, Oregon, Wyoming and Nebraska, the major agency responsible for seed certification is a university, as in Montana. In North Dakota, South Dakota, Washington and Nevada, the state department of agriculture has responsibility for seed certification. The certifying agency in all but two states is a growers' organization, styled either as a crop improvement association or as a seedgrower's association. In Nevada, the state department of agriculture is the certifying agency, and in North Dakota the state seed department fulfills that function.

In only 14 states do the seed certifying agencies also certify potatoes. Montana joins the majority in this respect also with the Montana Potato Improvement Association, a group separate and distinct from the Montana Seed Growers Association, certifying seed potatoes.

COMMITTEE ACTIVITY

Reluctance to jeopardize the state's position in defense of a number of lawsuits arising from certification of seed potatoes led the Committee to adjourn its only meeting without recommendations.

After hearing comments from seed growers, university officials, department of agriculture officials, and attorneys for both sides of the litigation, the Committee's consensus was that no substantive position should be taken until after the courts have ruled on the merits of the cases.

If the plaintiffs' position does not prevail, the state's certification system will be vindicated, and committee members believed in that event no revision of the seed certification laws would be required. A decision in favor of the plantiffs, however, would point out the provisions of the law that require rectification.

The seed certification subject illustrates the much larger problems created by the lack of sovereign immunity of state and local governments in the 1972 Constitution. Members of the Committee felt that if a problem does exist, its solution may lie in restoring the blanket of sovereign immunity over all functions of state and local governments.

While adjourning without taking action and without adopting formal recommendations, it was the intention of the Committee that the seed certification programs continue to function according to the established patterns with Montana State University continuing its traditional role.

Resolution of the litigation is not expected until mid-1981 or later. The Committee, therefore, believes it would be imprudent to make any recommendation to the 47th Legislature.

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